Operations Report
CDF Weekly Meeting

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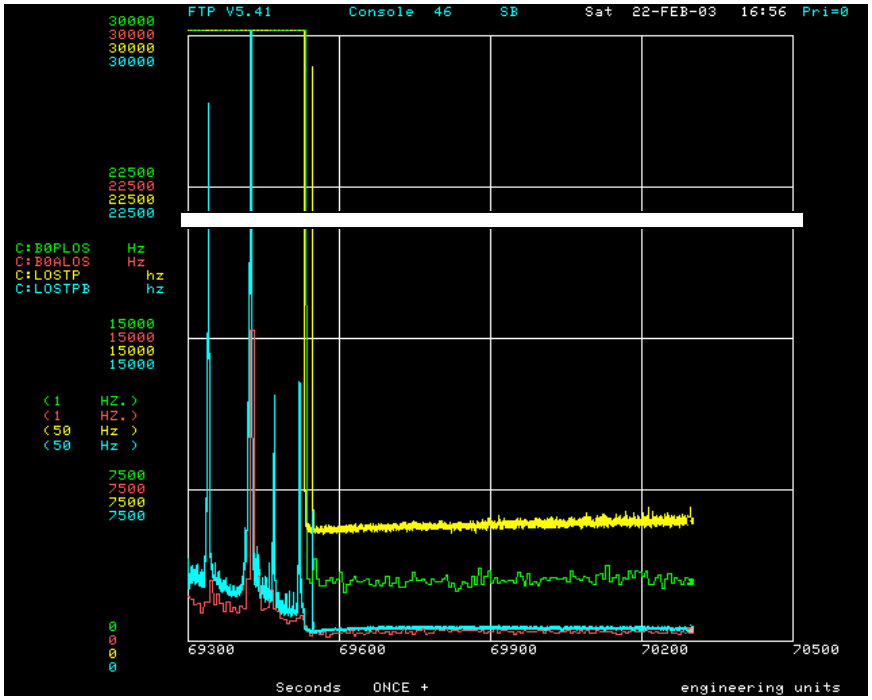
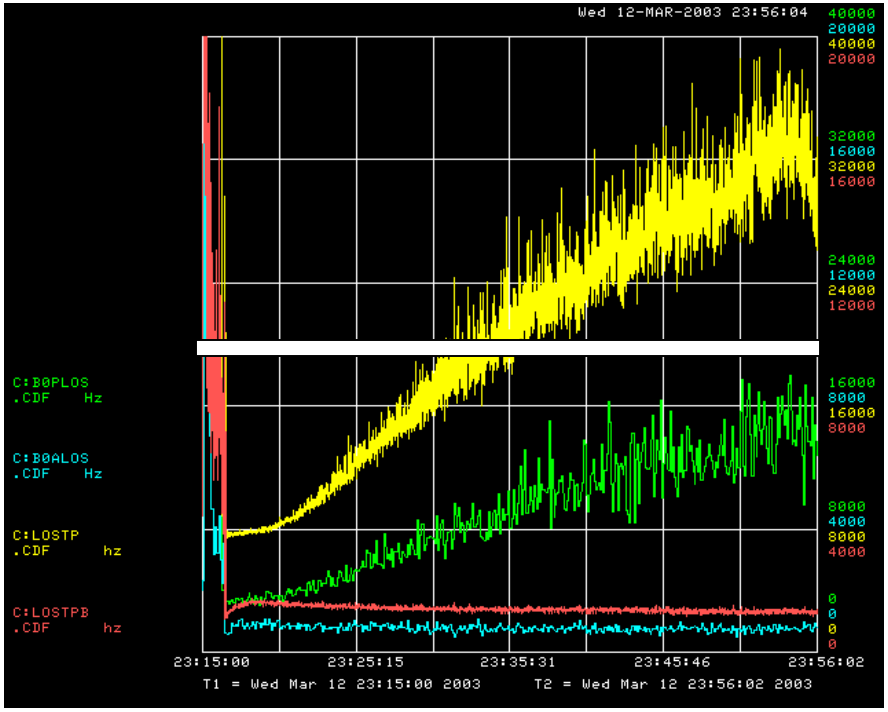
Store Summary

Date	Store	Init L	Int. L	Live L	Eff	Comments
3/14	2309	18.9	440.2	415.2	94.3%	Losses at 21kHz, 1.75 hours to integrate Silicon
3/15	2315	35.3	1351.4	1203.2	89.0%	Losses at 80kHz, 4.5 hours to integrate Silicon
3/16	2318	40.6	159.1	114.5	72.0%	Losses at 40kHz, Silicon never integrated
3/17	2321	34.6	1382.9	1022.6	73.9%	Losses at 25kHz, 3 hours to integrate Silicon
3/18	2323	37.5	1079.9	794.1	73.5%	Losses at 18kHz, 30 mins to integrate Silicon
3/19	2326	34.4	1288.7	1041.5	80.8%	Losses at 21kHz, 1 hour to integrate the Silicon
Totals			5702.2	4591.1	80.5%	

Store Losses

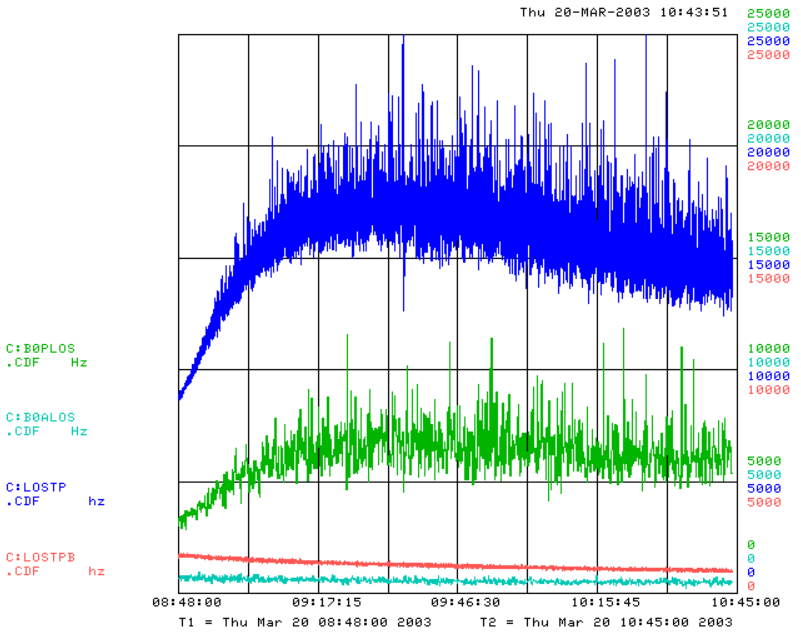


After the long shutdown but prior to spool/dipole replacement



Typical post dipole replacement store

Current Losses



- **On Monday MCR performed collimator alignment**
- **Found 3 collimators misaligned with respect to the beam**
  - The worst offender was the E0 vertical collimator which was off by 280 mils
  - This should be ~10 mils
- **Still need to check 1 extra set of proton collimators & the anti-proton collimators**
- **Expect further fine tuning to be successful now**

Other Issues

- **5% rate mismatch between SVT & svtsim**
  - Found problem due to AMboard for wedge 2
  - Swapping the board fixed the problem
  - Several ‘days’ worth of data declared bad for SVT
- **Roman Pot #3 misbehaving**
  - MCR tried to move our Roman Pots out on Monday
  - #3 spontaneously went back in to his inner limit twice causing very large spikes in the losses
  - Tripped COT, CMU, CMP, CMX, BMU, CES, & CPR
  - #3 has been disabled since then
  - Experts tried exercising it last night and saw same behaviour
  - Plan to replace the controller card at the next oportunity

Other Issues

- **CLC has been stable since replacing 16+2 photo tubes**
- **The L1 rate ceiling was raised from 12kHz to 14kHz last Friday**
  - Looks good with deadtime ~1.5%
- **This morning raised ceiling again to 16kHz**
  - Under study, but appears CSL may be having problems with rate (~20Mb/s)
  - New Trigger table to have L3 cut on 2 Track Trigger rate being generated

Summary

- Tevatron Luminosity has been very good, two record stores in the last week (40e30) and nearly 6pb^{-1} delivered in last week
- High losses have been a problem, Silicon wasn't integrated for hours in several stores
- After aligning collimators, the losses are just below the 20kHz required for Silicon, further tuning needed to safely get us under this mark
- Several problems keeping efficiency down, but detector in overall good shape
- Plan to stack and store over the weekend